

NAGIYEV, M.F.; KARAMZIN, P.V.

Operational efficiency of heat exchangers with annular diaphragmatic space. Dokl. AN Azerb. SSR 12 no.11:811-817 '56. (MLRA 10:3)

1. Institut nefti AN Azerbaydzhanskoy SSR.
(Heat exchangers)

NAGLEYEV, M. F.

✓ Homogeneous decomposition kinetics of propyl and butyl nitrites M. F. Nagley, Z. G. Petrova, and A. I. Sultanova. *Doklady Akad. Nauk S.S.S.R.* 109, 673-6 (1959). — The decompn. rates of PrONO and BuONO were detd. in a const. vol. from the pressure changes in the system. The velocity const. K of the reaction $C_3H_7ONO \rightarrow NO + 0.5 C_3H_7CHO + 0.5 C_3H_7OH$ at 227.2° was 0.800 during 15–425 sec. reaction time. The temp. const. of the decompn. rates of PrONO and BuONO were $K = 1.6 \times 10^{11} e^{-14,700/RT}$ /sec., and $4.53 \times 10^{11} e^{-19,200/RT}$ /sec., and the activation energies were 84,700 cal./mol. and 26,200 cal./mol., resp. The reaction is unimol. W. M. Sternberg

PM
MTT

MAGIYEV, M.R., professor, akademik; TOPCHIYEV, A.V., akademik, redaktor;
DOLGOV, V., redaktor izdatel'stva; PEVZNER, M., tekhnicheskii
redaktor

[Research in the processing of heavy petroleum residues and the
chemical use of their products] Issledovaniia v oblasti pererabotki
tiazhelykh neftiannykh ostatkov i khimicheskogo ispol'zovaniia ee
produktov. Baku, Izd-vo Akad.nauk Azerbaidzhanskoi SSR, 1957.
346 p. (MLRA 10:9)

1. Akademiya nauk Azerbaydzhanskoy SSR (for Magiyev)
(Petroleum industry--By-products)

SOV/124-58-1-776

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 99 (USSR)

AUTHORS: Nagiyev, M. F., Karamzin, P. V.

TITLE: Experimental Study of the Heat transfer Process in a Heat Exchanger Having an Annular Working Space Subdivided by Cylindrical Diaphragms
(Eksperimental'noye izucheniye protsessa teploperedachi v teploobmen-
nom apparate s kol'tsevim diafragmirovannym prostranstvom)

PERIODICAL: Izv. AN AzerbSSR, 1957, Nr 2, pp 23-35

ABSTRACT: The authors propose a method for the intensification of the heat transfer in a concentric-tube heat exchanger by setting up annular diaphragms on the inner surface of the outer tube. At the location of the diaphragm the liquid flows between the external surface of the inner tube and the opening of the diaphragm. A test setup and test results are described for the case of the heat transfer in such a heat exchanger with water. It is established that the total heat-transfer coefficient is multiplied by 3 to 5 times. From the analysis of the tables adduced it is apparent that the heat-transfer coefficient increases with increasing size of the opening in the diaphragm only up to a definite limit, beyond which a further enlargement of the

Card 1/2

SOV/124-58-1-776

Experimental Study of the Heat-transfer Process in a Heat Exchanger (cont.)

diameter of the diaphragm leads to a reduction of the heat-transfer coefficient. The paper merely states the fact of the existence of a critical section of the diaphragm.

V. N. Bogin

Card 2/2

NAG/MEV, M.F.

Reaction of ethylene with hydrogen chloride in the presence of aluminum silicate catalyst. M. F. Nagay and A. D. Mamedova. Izvest. Akad. Nauk Azerbaidzhan. S.S.R. 1957, No. 4, 17-30 (in Russian).—Expts. were made with a technical ethylene (98-97%) in the presence of Al_2O_3 + SiO_2 as catalyst (10-12% and 84%, resp.). The optimal conditions of this reaction are: 270-300°, excess of HCl 1.4-1.6 mol., and the rate of C_2H_4 25-30 l./l. hr. Under these conditions 23.7 g. of the EtCl per l. of catalyst/hr. can be obtained.
M. Charnandarian

5
1-4E4j
1-4E2C(j)
2 May

PM
MT

124 58 6-6772

Translation from: Referativnyy zhurnal Mekhanika 1958, Nr 5 (USSR)

AUTHORS: Nagiyev, M. F., Karamzin, P. V.

TITLE: Determination of the Heat Transfer Coefficient of a Flow in a Tubular Space in a Transitional Hydrodynamic Regime (Opredeleniye koefitsiyentov teploobdacha potoka trubnogo prostora pri perekhodnom gidrodinamicheskom rezhime)

PERIODICAL: Izv. AN AzerbSSR 1957, Nr 5, pp 35-44

ABSTRACT: A method of calculation of the Nusselt number proposed by the authors is described for a longitudinal flow along the surface of pipes in a transitional hydrodynamic regime. The authors consider transitional a flow characterized by values of the Reynolds number, R , in the range between 2,320 and 10,000. The proposed method is based on the assumption that within the abovedefined range of values of the R number, perturbation of the stability of the laminar flow does not affect the entire volume of the core of the flow. In connection therewith the authors allow the coexistence of regions of laminar and turbulent flow within the core of the flow. It is proposed that the Nusselt number for the transitional conditions be determined

Card 1/3

124-58-6 6772

Determination of the Heat Transfer Coefficient of a Flow (cont.)

as the sum of: $N'_{ll} = LN_{ll} + TN_{lt}$. Here N'_{ll} is the Nusselt criterion at $R = 2,320 - 10,000$; N_{ll} is the same quantity for laminar flow at $R = 2,320$; N_{lt} is the same quantity for turbulent flow at $R = 10,000$; the coefficients L and T characterize the distribution of the laminar and the turbulent flow regimes within the flow. The coefficients L and T are considered to be linear functions of the Reynolds number, R , of the liquid flow in the transitional state. The results of experiments carried out by the authors with water are compared with the experimental results obtained by I. T. Alad'yev, M. A. Mikheyev, and O. S. Fedynskiy (Izv. AN SSSR, Otd. tekhn. n., 1951, Nr 1). The experiments described were carried out with small variations of temperature between the inlet and outlet sections of the working region of the flow. In the analysis of the test data, a linear law of temperature variation in the stream in the direction of the flow was used. The value of the Nusselt number satisfying the laminar conditions (N_{ll}) was determined from the Zeeder and Tait formula, and that for the turbulent flow (N_{lt}) was obtained from Kraussold formula as corrected by M. A. Mikheyev. No description of the experimental method or of the experiments is given in the article. The experimental observations of the authors were analyzed according to the

Card 2/3

124-58-6-6772

Determination of the Heat Transfer Coefficient of a Flow (cont.)

usual methods of computation based on the introduction of a correction coefficient into the formula used for determining the value of N when $R > 10,000$. The values of the correction coefficient were taken by the authors from the findings of V. M. Rimm (Teploobmennyye apparaty (Heat Exchangers) Goskhimizdat, 1948). From the curve included in the article it follows that the results of the experiments as calculated by the usual method correlate better with the results of the experiments by Alad'yev, Mikheyev, and Fedynskiy, than with those calculated by the method suggested by the authors. The formulas contain typographical errors.

M. D. Vaysman

1. Fluid flow--heat transfer
2. Hydrodynamic research

Card 3/3

NHC-1941, 111

USSR/General Problems. Methodology. History. Scientific A
Institutions and Conferences. Teaching. Problems
of Bibliography and Scientific Documentation

Ann. Year : Izv. Akad. Nauk SSSR, No 4, 1957, 15217

Author : M. A. Mamedov

Institution : Not given

Title : Chemical Science in Azerbaijan

Orig. Pub. : Izv. AN Azerb. SSR, 1957, No 10, 39-48

Abstract : On the 40th anniversary of the Great October
Socialist Revolution.

Card 1/1

NAGIYEV, M.P.
NAGIYEV, M.P., KARAMEIN, P.V.

Experimental study of pressure losses during the flow of liquids
in annular diaphragmatic space. Dokl. AN Azerb. SSR 13 no.8:847-852
'57 (MLRA 10:9)

1. Institut nefti Akademii nauk Azerbaydzhanskoy SSR.
(Heat exchangers)

NAGIYEV, M.F.; VECHKHAYZER, I.V.

Flowmeter for measuring small amounts of liquids during continuous
flow under pressure. Dokl AN Azerb.SSR 13 no.10:1057-1061 '57
(MIRA 10: 12)

(Flowmeter)

NAGIYEV, M. F.

3

1400
Material balance of complex and multistage recycle processes (in petroleum refineries) M. F. Nagiyev, Petrol. Inst. Acad. Sci. Azerbaijan S.S.R. (Chem. Eng. Trans. 53, 207-303, 1957).—The stream weights and the material balance both of individual reactors and of integrated units with partial or complete recycling, are detd. The material balance theory discussed provides a means for the solution of this problem.
C. L. Mantell

gmb
amb

NAGIYEV M. F.

20-3-43/59

AUTHORS: Nagiyev, M.F., Member of the Academy of Sciences of the Azerbaijan SSR, Shakhtakhtinskiy, T.N., Karamzin, P.V.

TITLE: Development of the Theory of Recirculation Processes (Razvitiye teorii retsirkulyatsionnykh protsessov)

PERIODICAL: Doklady Akad.Nauk SSSR, 1957, Vol. 115, Nr 3, pp.576-579 (USSR)

ABSTRACT: The method of calculation proposed here develops the theory of recirculation and makes possible an evaluation of the efficiency of an arbitrary complex chemical processing of raw materials not only within one single plant, but within the framework of different chemical processes which are tied together. The most general scheme represents a system of closely connected complex chemical processes. (See fig 1). Into this scheme quantities $g_{10}, g_{20}, \dots, g_{j0}, \dots, g_{m0}$ are introduced, denoting charges 1, 2, ..., j, ..., m of the reactors with an independent (prescribed) amount of raw material, and $g_{1'0}, g_{2'0}, \dots, g_{j'0}, \dots, g_{m'0}$ denoting charges of the reactors with dependent amounts of raw material. The independent and the dependent reactor charges with fresh raw material consist of the following mixture of components.

$$g_{j0} = \sum g_{j'0i_j}, \quad g_{j'0} = \sum g_{j'0i_j}, \quad (1)$$

$i_j = A_j, B_j, C_j, \dots;$
 $= 1, 2, \dots, m;$

The author arrives at a system of equations and solves it by dividing the system into two parts. After the total charges have been

Card 1/3

Development of the Theory of Recirculation Processes.

20-3-43/59

computed, the amount of independent charges per component is to be calculated. A judgement can be given, to what extent the postulated production rates are covered by the raw material of the corresponding composition. If the production rates should not correspond to the amount of total charges, different production rates must be introduced and the system must be solved until there is correspondence between the amount of charge and the production rates; 2. The number of separate components of all kinds of fresh raw material with the exception of one component in each reactor, is determined from the formula (7), which is obtained from the introduction of the values of the total charges into the corresponding equations of the system. In this way the solution of the system is complete. For this purpose the following is necessary: a) by using the system (5), knowing the corresponding g_{yn} to determine the amount of fresh charge per component of each reactor with an independent supply.

b) knowing g_{yn} , by using the system (3) the supply per component of each reactor with a dependent charge with fresh raw material is to be determined. All variants of the solutions of the system (4) in the manner detailed here are correct, if the addition of arbitrary m' -components is set equal to zero. Each variant demands, that the fresh supply of certain components is set equal to zero. They

Card 2/3

Development of the Theory of Recirculation Processes.

20-3-43/59

cannot be known beforehand, because the amount of all the recirculant substances entering a reactor is unknown. If the variant computed appears to be undesired, the fresh supply of other components must be set equal to zero and the problem must be solved as many times until the desired variant has been found. In general the recirculants must not be carried away, but the desired composition should be obtained by an addition of the missing components from outside. Very often it can be immediately found, which component in each reactor of a dependent system possesses a fresh supply, which equals zero. There are 2 Slavic references and 1 figure.

ASSOCIATION: **Petroleum Institute of the AN Azerbaydzhan SSR** (Institut nefti AN AzerbSSR)

SUBMITTED: February 11, 1957

AVAILABLE: Library of Congress.

Card 3/3

5(1)

PHASE I BOOK EXPLOITATION

SOV/1766

Nagiyev, Murtuza Fatullayevich

Ucheniye o retsirkulyatsionnykh protsessakh v khimicheskoy tekhnologii (The Science of Recycling Processes in Chemical Technology) Moscow, Izd-vo AN SSSR, 1958. 243 p. 8,000 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR, and Akademiya nauk Azerbaydzhanskoy SSR, Institut nefti.

Resp. Ed.: A.V. Topchiyev, Academician; Ed. of Publishing House: A.L. Bankvitser; Tech. Ed.: T.V. Polyakova.

PURPOSE: This book is intended for scientists, technologists, and specialists in scientific research and project engineering institutes, as well as for manufacturers concerned with fundamental and special problems of chemical technology.

COVERAGE: The book contains theoretical and experimental data compiled by the author and intended to help solve the following

Card 1/9

The Science of Recycling Processes (Cont.)

SOV/1766

general and fundamental problems in chemical technology: 1) evaluation of the effectiveness of any complex system of chemically processing various raw materials (the system must be suitable for application on an industrial scale), 2) pseudocontinuous determination of steady state parameters, reproducing their results and obtaining the necessary real values of this state for any complex system of processing raw materials even when qualitatively different raw materials are recirculated, and 3) effective treatment of an active reaction unit, based on simultaneously solving recirculation and kinetic chemical reaction equations. This would permit the determination of conditions which would guarantee maximum productivity per unit volume of reactor space and minimum formation of by-products. The theory and methods of studying recirculation processes in this monograph apply to dynamic (circulating) organic-chemical systems, but in equal measure, may apply to static systems which incorporate recirculation processes. These data have a common significance for all industrial chemical processes as well as for many problems of non-ferrous metallurgy, isotope chemistry and nuclear fuels. There are 14 references of which 12 are Soviet and 2 English. No personalities are mentioned.

Card 2/9

The Science of Recycling Processes (Cont.)

SOV/1766

TABLE OF CONTENTS:

Foreword	3
Introduction	5
Ch. I. Elementary Conceptions of the Recycle Theory	10
1. Physical Nature of Recycling Processes	10
A. Recycle process with repeated processing of the entire unreacted raw material	13
B. Recycle process with repeated processing of part of the unreacted raw material	17
C. Permissible error in reaching the practical steady state	18
D. The consecutive chemical conversion of unreacted raw material	19
E. Properties in common between continuous and consecutive processes in the chemical conversion of unreacted raw stock	21
F. The connection between reaction time and the recycling coefficient	22

Card 3/9

The Science of Recycling Processes (Cont.)

SOV/1766

- 2. Single Reactor System with Multicomponent Recycle Stocks 23
 - A. Recycle process for multicomponent systems with repeated processing of the entire unreacted raw stock 23
 - B. Recycle process for multicomponent systems with repeated processing of part of the unreacted raw stock 25
 - C. Determination of the required quantity of fresh feed stock components for a given constant component ratio in the over-all reactor charge 26
 - D. Practical example 27
- 3. Processes with Simple and Conjugate Recycling in Single Reactor Systems 29
 - A. Conversion of single-component fresh feed stock to the production of conjugate recycle stock 29
 - B. Conversion of a single-component feed stock to simple recycling and of reaction products with simple and conjugate recycling 31

Card 4/9

The Science of Recycling Processes (Cont.)

SOV/1766

Ch. II. Theory of Recycle Processes with Unrestricted Composition of Reactor Charge	33
1. Combination of Once-Through Chemical Processes and Recycling Processes	33
2. Theory of Recycle Processes with Unrestricted Ratio of the Charge Components	36
3. Practical Application of the Recycle Theory for Systems with Unrestricted Ratio of Reactor Charge Components	51
A. Material balance for the synthesis of adipic acid for synthetic fibre (nylon) manufacture	52
B. Material balance for the synthesis of the detergent alkylaryl sulfonate (dodecylbenzene sulfonate)	55
C. Material balance for the synthesis of dimethylterephthalate for synthetic fiber (terylene) manufacture	59
D. Material balance for the complex processing of straight run fuel oil	64
Conclusion	77

Card 5/9

The Science of Recycling Processes (Cont.)	SOV/1766
Ch. III. Drawing-up a Complex Mixture Law and Its Rules	78
Drawing-up a Complex Mixture Law	79
Rule I	79
Rule II	79
Rule III	79
Rule IV	80
Ch. IV. Generalized Theory of Recycle Processes	84
1. Derivation of basic equations	84
2. The number of possible alternative calculations for the system (VI, 4)	91
3. The drawing-up of the material balance for a multi-stage complex system	92
4. Example of determining the efficiencies of various alternatives of the complex processing of chemical stocks	92
Ch. V. Experimental Determination of the Steady State Parameters of Chemical Processes	105
1. Determination of the steady state parameters of simple reaction systems	105
A. Method of consecutive chemical conversion of recycle stocks	107
B. Pseudo-continuous method with recycling	115
Card 6/9	

The Science of Recycling Processes (Cont.)

SOV/1766

2. Determination of the steady state parameters of conjugately operating integrated reaction systems 119
 - A. Three-reactor system 119
 - B. Multi-reactor and multi-component system 122
 - C. Examples for determining the steady state parameters of conjugated recycle systems 123
 - Thermal cracking of fuel oil with recycling of deasphaltized cracked residue 123
 - Synthesis of dimethylterephthalate 128
3. Application of Methods for Determining the Steady State Parameters to the Solution of Actual Problems in Chemical Engineering 133
 - A. Experimental study of the light thermal cracking of fuel oil with recycling of the distillates for repeated light cracking 134
 - A short description of the flow diagram 134
 - Investigation of the light cracking of fuel oil with recirculation of incompletely reduced heavy phlegma 136
 - Investigation of the light cracking of fuel oil with recirculation of completely reduced heavy phlegma obtained by vacuum distillation of the cracked residue 147

Card 7/9

The Science of Recycling Processes (Cont.)	SOV/1766
Ch. VI. Conversion of the Terms in the Basic Recycle Equations from Weight to Molar Units	158
Ch. VII. Development of the Elements of the Technological Process Leading to High Efficiencies for Unit Volume of Reactor Space	164
1. Determination of minimum reactor space for isomerization reaction	166
A. Processes carried out with recycling	168
B. Two-stage processes	170
2. Determination of maximum yields of the intermediate product in consecutive reactions carried out with recycling	172
3. Development of the flow diagram of a unit for propylene hydrochlorination	175
A. Derivation of equations for designing	177
Single-stage uniflow systems of hydrochlorination	178
Systems without recycling (Flow diagram I)	178
Systems with recycling of unreacted raw material (Flow diagram II)	183
Two-stage systems of hydrochlorination with counterflow between the stages	188
Simplest two-stage system (Flow diagram III)	188

Card 8/9

The Science of Recycling Processes (Cont.)

SOV/1766

Two-stage system with the removal of the reaction product between the stages (Flow diagram IV)	193
Two-stage systems with recycling of unreacted raw stock (Flow diagram V)	196
Three-stage system of hydrochlorination with counter-current flow of reactants and removal of the product between the stages (Flow Diagram VI)	199
Single stage counterflow (hypothetical) systems of hydrochlorination	206
Systems without recycling (Flow diagram VII)	213
Systems with recycling of unreacted raw material (Flow diagram VIII)	215
B. Determination of Minimum Reaction Space and Maximum Yield of the Final Product in the Catalytic Hydrochlorination of propylene	219

AVAILABLE: Library of Congress

TM/ad
6-25-59

Card 9/9

NAGIYEV, M. F.

AUTHORS: Golovkin, N. N., Ignat'yev, O. S. SV/30-58-9-37/51

TITLE: Development of Researches on Highly Molecular Compounds
(Razvitiye issledovaniy po vysokomolekularnym soyedineniyam)
In the Presidium of the Council for Co-Ordination of
Scientific Work of the Academies of Sciences of the Union
Republics and the Branches (V Prezidiume Soveta po koordi-
natsii nauchnoy deyatel'nosti akademiy nauk soyuznykh respublik
i filialov)

PERIODICAL: Vestnik Akademii nauk SSSR, 1958, Nr 9, pp. 101 - 104 (USSR)

ABSTRACT: The session of the presidium of the council took place on
June 21st. A.V.Topchiyev, Vice-President of the AS USSR,
stressed the importance of these researches in order to
fulfil the resolutions of the plenary session of the TsK
KPSS in May. He mentioned that the scope of researches at
present carried out is insufficient. In order to prepare
a prospective plan for the years 1959 - 1965 a special
committee was set up. 42 main trends for researches on the
subject of highly molecular compounds were fixed. The chair-
man of the scientific council V.A.Kargin, Member, Academy of

Card 1/5

Development of Researches on Highly Molecular Compounds. SOV/30-8-9-37.51
In the Presidium of the Council for Co-Ordination of Scientific Work
of the Academies of Sciences of the Union Republics and the Branches

Sciences, USSR, reported about the activities of the
council. Further addresses were given by:

M.F.Nagiyev, Vice-President of the AS Azerbaydzhan SSR, on
the urgency to intensify researches on the field of techno-
logical phenomena.

S.D.Mekhtiyev, Head of the Petroleum-Institute of the AS
Azerbaydzhan SSR, on the efforts in the field of petroleum
chemistry.

V.I.Nikitin, Head of the Institute of Chemistry of the AS
Tadzhikskaya SSR, requested assistance in training scientific
cadres.

A.Ye.Arbutov, Chairman of the Kazan' Branch of the AS USSR,
mentioned the problem of proper assignment of scientific
staff.

Kh.U.Uzmanov, Head of the Institut khimii rastitel'nykh
veshchestv Akademii nauk Uzbekskoy SSR (Institute of
Chemistry of Vegetable Materials of the AS Uzbekskaya SSR),
outlined the tasks of Uzbekistan scientists in connection

Card 2/5

Development of Researches on Highly Molecular Compounds. SOV/30-7-9-17,51
In the Presidium of the Council for Co-Ordination of Scientific Work
of the Academies of Sciences of the Union Republics and the Branches

with the rich supply of cellulose and natural gases.
R.D.Obolentsev, Chairman of the Bashkirskiy filial Akademii nauk SSSR (Bashkiriya Branch of the AS USSR), spoke about the urgency to intensify researches on the sulphurous petroleum deposits of Bashkiriya.

N.F.Yermolenko, Member, Academy of Sciences, Belorusskaya SSR, stressed the problems of development of the chemical industry of his country in connection with her deposits of turf and petroleum.

Yu.Yu.Matulis, President of the AS Litovskaya SSR, remarked that Lithuania (Litva) is rich in vegetable raw materials, thus has to intensify her research on this field.

S.A.Giller, Corresponding Member, AS Latviyskaya SSR, informed the assembly of the intention of Latvia (Latviya) scientists to carry out research on the use of natural polymers.

A.T.Kyll, Head of the Institute of Chemistry of the Academy of Sciences, Estonskaya SSR, mentioned problems in connection

Card 3/5

Development of Researches on Highly Molecular Compounds. SOV/30-56-2-37/51
In the Presidium of the Council for Co-Ordination of Scientific Work
of the Academies of Sciences of the Union Republics and the Branches

with the use of the slates of Estonia (Estoniya).
G.M.Shchegolev, Head of the Institute of Heat Energetics of
the Academy of Sciences, Ukrainian SSR, recommended to lay
more stress upon the use of coal and other solid fuels
for the production of polymeric material.

Card 4/5

SOV/30-58-9-37/51

Development of Research on Highly Molecular Compounds

In the Presidium of the Council for Co-ordination of Scientific Work of the Academies of Sciences of the Union Republics and the Branches

I. P. Bardin, Member, Academy of Sciences, USSR, Vice-President of the AS USSR, pointed out the importance of coal and wood as raw materials for the production of polymeric material. At last the chairman of the Council, A. N. Nesmeyanov, Member, Academy of Sciences, USSR, addressed the assembly and said that the whole scientific staff has to be employed for the development of chemistry. But it is necessary to recruit new scientists for the staff in order to avoid a removal of scientists from tasks likewise important. A resolution was passed to ask the Presidium of the AS USSR for its assistance in training adequate scientific personnel.

Card 5/5

NAGIYEV, M.F.; MAMEDOVA, A.D.

Equation of the rate of a reversible bimolecular heterogenous catalytic reaction in a flow. Dokl. AN Azerb. SSR 14 no.1:23-30 '58.
(MIRA 11:2)

1. Institut nefti AN Azerbaydzhanskoy SSR.
(Chemical reaction, Rate of) (Petroeleum industry)

NAGIYEV, M.F.; EFENDIYEV, R.M.; ISMAILZADE, I.G.

Synthesis of some organic compounds of practical importance based
on the reaction $\text{CO} + \text{H}_2$ taking place in an electric discharge.

Dokl. AN Azerb. SSR 14 no.5:347-355 '58.

(MIRA 11:5)

1. Institut nefti AN AzerSSR.

(Electric discharges through gases)
(Chemistry, Organic--Synthesis)

NAGIYEV, I. P.

"The Theory of Complex Recirculation Processes of Petrochemical Catalysts."

Report submitted at the Fifth World Petroleum Congress, July -
5 June 1979. New York.

NAGIYEV, M F

11(4);5(3)

PHASE I BOOK EXPLOITATION

SOV/2624

Topchiyev, Aleksandr Vasil'yevich, Murtuza Fatullayevich Nagiyev, and Togrul Neymat ogly Shakhtakhtinskiy

Znachenie nefi v proizvodstve sovremennykh sinteticheskikh materialov (Importance of Petroleum in Production of Modern Synthetic Materials) Moscow, Izd-vo AN SSSR, 1959. 126 p. (Series: Akademiya nauk SSSR. Nauchno-populyarnaya seriya) Errata slip inserted. 15,000 copies printed. Ed. of Publishing House: B. E. Davydov; Tech. Ed.: I. A. Makogonova.

PURPOSE: This booklet is intended for persons studying problems of petroleum conversion and production of petroleum chemicals.

COVERAGE: The booklet describes the development of petroleum chemical synthesis, the chemical composition of crudes, different methods of crude oil conversion to obtain such synthetic materials as plastics, synthetic rubber, synthetic fiber, synthetic washing agents, and various perfumes and drugs. Further, the booklet discusses the fundamentals of the chemistry of hydrocarbons and their derivatives, and describes different petroleum conversion processes, such as cracking, pyrolysis, platforming, dehydration, polymerization, etc., the by-products of which are used in industrial organic

Card 1/4

Importance of Petroleum (Cont.)

SOV/2624

synthesis. Appendix contains numerous tables listing the characteristics of different hydrocarbons. There are 8 references, all Soviet.

TABLE OF CONTENTS:

Introduction	3
Ch. I. Fundamentals of the Chemistry of Hydrocarbons and Their Derivatives	7
1. Brief information on hydrocarbons and their structures	7
2. General information on carbon compounds	10
3. Homologous series of hydrocarbons belonging to different classes	17
4. Isometry	19
5. Hydrocarbon derivatives	24

Card 2/4

Importance of Petroleum (Cont.)

80V/2624

Ch. II. Petroleum, Its Composition, and Properties	26
1. Elementary composition of petroleum	26
2. Chemical composition of petroleum groups and their separate fractions	27
3. Hydrocarbon composition of individual light petroleum fractions	34
Ch. III. Natural and Refinery Gas as Raw Material Used for Production of Synthetic Materials	38
Ch. IV. Modern Industrial Synthetic Materials With Crude Oil Base	46
1. Major processes of petroleum chemical conversion yielding hydrocarbon stock employed in production of synthetic materials	46
2. Modern synthetic materials produced from petroleum	56

Card 3/4

Importance of Petroleum (Cont.)

SOV/2624

Appendix

105

Bibliography

127

AVAILABLE: Library of Congress

Card 4/4

TM/os
12/22/59

MAGIYEV, M.F.; SHAKHTATINSKIY, T.N.; KANDALOVA, V.D.; KNOFF, L.A.

Applying the theory of recirculation processes to the
development of complete flow systems for the production of
polymer compounds. Azerb.khim.zhur. no.1:3-10 '59.
(MIRA 13:6)

(Polymers)

NAGIYEV, M.F.; ABBASOVA, B.G.; KULIYEVA, V.G.

Using hydrogenation methods for determining the hydrocarbon
group composition of petroleum products containing unsaturated
compounds. Azerb.khim.zhur. no.2:17-27 '59.
(MIRA 13:6)

(Petroleum products) (Hydrocarbons)

NAGIYEV, M.F.; MAMEDOVA, A.D.; KULIYEVA, V.G.

Kinetics of the hydrochlorination of ethylene on an aluminosilicate
catalyst. Azerb.khim.zhur. no.3:29-36 '59. (MIRA 1: 9)
(Ethylene) (Hydrochloric acid)

5(0)

AUTHOR:

Nagiyev, M. F., Academician AS

SOV, 30-19-1-11, 61
Azərbaycan SSR

TITLE:

The Theory of Recirculation Processes and Their Importance to the Development of Chemical Technology (Uchenye i razrabotki latsionnykh protsessakh i yego znachenie dlya razvitiya khimicheskoy tekhnologii)

PERIODICAL:

Vestnik Akademii nauk SSSR, 1959, Nr 3, pp 59-66 (USSR)

ABSTRACT:

Modern chemical technology is primarily characterized by multi-stage and recirculation processes, similar to the organic synthesis of many plastics. The technological problems of these processes may be solved only by theoretical and experimental methods of the theory of recirculation. By experiments it was found that the four-stage process of synthesizing dimethyl terephthalate may be realized in two stages in oxidation and etherification reactors (Fig 1). The author of this article was the first to establish the theory of recirculation processes in chemical technology, as may be seen from papers previously published by him (Ref 1). Further, he describes the principles of this theory, the directions of its development and prospects of application to various problems of chemical

Card 1/2

The Theory of Recirculation Processes and Their Importance to the Development
of Chemical Technology

SOV/30-59-3-11/61

engineering. He refers to the following problems herein: the general theory of recirculation processes (see scheme in figure 2); the law and the regularities of the reduction of composed mixtures; experimental determination of the parameters of the stabilized state of chemical processes (see scheme in figure 3); devising of the technological elements of this process which secure high efficiency per unit of the reaction volume. The theory of recirculation processes is of general importance to all branches of chemical technology. It may be employed for problems of the chemistry of isotopes, nuclear fuel, etc since these also represent multi-stage processes. The author assumes that this theory may also help to solve theoretical and practical questions of some merely physical problems of chemical technology, that is to say, it may be useful for the establishment of the technology of producing new kinds of plastics. There are 3 figures and 1 Soviet reference.

Card 2/2

NAGIYEV, M.F.; KARAMZIN, P.V.; GUSEYNOVA, A.M.

Determination of operating conditions for the thermal stability
of a steady state of exothermic reactions. Azerb.khiz.zhur. no.6:
33-40 '59. (MIRA 14:9)

(Heat of reaction)

NAGIYEV, M.F.; TRYAPINA, L.I.

Calorific value of aviation kerosenes obtained by thermal cracking of
fuel oil. Dokl.AN Azerb.SSR 15 no.1:25-28 '59. (MIRA 12:3)
(Kerosene)

NAGIYEV, M.F.; TRYAPINA, L.I.

Group structure composition of aviation kerosenes obtained by
the cracking of mazuts. Dokl.AN Azerb.SSR 15 no.2:119-123
'59. (MIRA 12:5)

1. Institut nefti AN AzerSSR.
(Kerosene)

NAGIYEV, M.F.; MAMEDOVA, A.D.

Experimental investigation of the reaction of ethylene hydrochlorination under pressure. Dokl. AN Azerb. SSR 15 no. 3: 201-211 '59. (MIRA 12:5)

1. Institut nefti AN AzerSSR.
(Ethylene) (Hydrochloric acid)

NAGIYEV, M.F.; MAMEDOVA, A.D.; KULIYEVA, V.G.; KNOFF, L.A.

Investigating the reaction of ethylene hydrochlorination over
aluminum-bismuth catalysts. Dokl. AN Azerb. SSR 15 no.3:213-218
'59. (MIRA 12:5)

1. Institut nefti AN AzerSSR.
(Ethylene) (Hydrochloric acid) (Aluminum) (Bismuth)

NAGIYEV, M.F.; KULIYEVA, V.G.; KALYUZHNYAYA, N.V.; MAMEDOVA, A.D.

Determining the length of serviceability of alumina-bismuth catalysts in the hydrochlorination of ethylene. Dokl. AN Azerb. SSR 15 no.4:293-297 '59. (MIRA 12:6)

1. Institut nefti Akademii nauk Azerbaydzhanskoy SSR.
(Ethylene) (Hydrochloric acid) (Catalysts)

NAGIYEV, M.F.; KULIYEVA, V.G.; ABRASOVA, B.G.

Using the nonselective hydrogenation methods for determining the hydrocarbon group composition of bright petroleum products containing nonsaturated compounds. Azerb. neft. khoz. 38 no.5:33-35 My '59.
(MIRA 12:9)

(Hydrogenation) (Hydrocarbons)

NAGIYEV, M.F.; ABRASOVA, B.G.; KULIYEVA, V.G.

Using the selective and nonselective hydrogenation methods for
studying the hydrocarbon group composition of the kerosene fraction.
Azerb. neft. khoz. 38 no.6:36-39 Je '59. (MIRA 12:10)
(Hydrogenation) (Hydrocarbons) (Kerosene)

NAGIYEV, M.F.; KARAMZIN, P.V.; SHAKHTAKHTINSKIY, T.N.

Laws of recycling processes in chemical technology. Azerb.
khim.zhur. no.2:11-21 '60. (MIRA 14:8)
(Chemical reaction--Conditions and laws)
(Petroleum--Refining)

NAGIYEV, M.F.; GADZHIYEV, T.A.; GUSEYNOV, N.G.

Synthesis of vinyl chloride by the conjugated dehydrochlorination
of 1, 2-dichloroethane and by hydrochlorination of acetylene.
Azerb.khim.zhur. no.3:11-18 '60. (MIRA 14:8)
(Ethylene) (Ethane) (Acetylene)

MAGIYEV, K.F.; KARAMZIN, P.V.; GUSEYNOVA, A.M.

Application of the theory of the steady-state thermal
conditions of exothermic reactions to the solution of
practical problems. Azerb.kim.zhur. no.4:69-74 '60.
(MIRA 14:8)
(Ethylene oxide) (Thermochemistry)

NAGIYEV, M.F.; TRYAPINA, L.I.; ASLANOVA, N.F.

Determination of the kinetic characteristics of thermally cracked
fuel oils. Azerb.khim.zhur. no.5:57-63 '60. (MIRA 14:8)
(Petroleum as fuel)

NAGIYEV, M.F.; TRYAPINA, L.I.; RASULBEKOVA, T.I.

Optimum decomposition product yield in the thermal cracking of fuel
oils. Azerb.khim.zhur. no.6:91-97 '60. (MIRA 14:8)
(Petroleum as fuel) (Cracking process)

NAGIYEV, M.F.; ZEYNALOV, M.F.; DADASHEVA, Z.A.

Study of the liquid phase oxidation of the distillate obtained in
a light thermal cracking of fuel oils. Trudy Inst.khim. AN Azerb.-
SSR 18:90-106 '60. (MIRA 14:9)
(Petroleum as fuel) (Oxidation)

NAGIYEV, M.F.; TOPCHIYEV, A.V., akad., red.; DEMENT'YEVA, L., red. izd-va;
ISMAILOV, T., tekhn. red.

[Chemistry, technology and calculation of processes for the synthesis
of motor fuels] Khimiia, tekhnologiia i raschet protsessov sinteza mo-
tornykh topliv. 2., perer. i dop. izd. Baku, Izd-vo Akad. nauk Azer-
baidzhanskoi SSR. Vol.1. 1961. 368 p. (MIRA 14:12)
(Motor fuels)

NAGIYEV, M.F.; TOPCHIEV, A.V., akademik, red.; SHTEYNGEL', A.S.,
red. izd-va; AKHMEDOV, S., tekhn. red.

[Principles of the development of complex chemical processes
and designing of reactors] Osnovy razrabotki kompleksnykh khimi-
cheskikh protsessov i proektirovaniia reaktorov. Pod red. A.V.
Topchieva. Baku, Azerbaidzhanskoe gos. izd-vo, 1961. 489 p.
(MIRA 15:12)

(Chemical reaction--Conditions and laws)
(Chemical reactors)

NAGIYEV, M.F.; KANDALOVA, V.D.; SADYKHOVA, Kh.I.

New method of calculating unit operations in the manufacture
of sulfuric acid by the contact process. Azerb.khim.zhur.
no.1:71-76 '61. (MIRA 14:8)
(Sulfuric acid)

NAGIYEV, M.F.; KARAMZIN, P.V.; STEFANSKAYA, T.G.; ZEYNALOVA, T.M.

Effective solutions of problems in the theory of recycling
processes. Azerb. khim.zhur. no.3:3-15 '61. (MIRA 14:11)
(Chemical engineering--Problems, exercises, etc.)

S/081/62/OCC/007/C19/C33
B168/B1C1

AUTHORS: Nagiyev, M. F., Vechkhayzer, I. V., Sadykhova, S. A.

TITLE: Experimental research into the process of stabilization by hydrogenation of the middle fractions from light thermal cracking of mazut

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 7, 1962, 536-539, abstract 7M109 (Azerb. khim. zh., no. 4, 1961, 61-73)

TEXT: The kinetics of the process of stabilization by hydrogenation of the 135-300°C fractions from light thermal cracking of mazut with an Al-Co-Mo catalyst in the temperature range of 320-400°C and at a pressure of 20-100 atm with various mazut/hydrogen ratios was studied in the laboratory. The influence of the thickness of the catalyst layer on the degree of conversion of the unsaturated hydrocarbons was shown. The optimum conditions for the process (those causing no appreciable destructive changes and which result in stabilized products almost entirely free from unsaturated and sulfur compounds) were as follows: pressure 100 atm, temperature 400°C, molar mazut/hydrogen ratio = 1:1.5; volume flow rate

Card 1/2

Experimental research into the ...

S/081/62/000/C07/019/033
B168/31C1

1.0-1.5 l/l·hr. A diagram of the apparatus is given. [Abstracter's note:
Complete translation.]

Card 2/2

NAGIYEV, M.F.; KANDALOVA, V.D.

Theory of recirceling applied to the calculation of zinc
production by the pyrometallurgical method. Azerb.khim.zhur.
no.5:69-76 '61. (MIRA 15:5)
(Zinc—Metallurgy)

ALIKHANOV, E.N.; ARUSHANOV, N.A.; AKHUNDOV, V.Yu.; ALIZADE, M.A.; AZIZBEKOV, Sh.A.; BAGIROV, M.A.; VEZIROV, S.A.; VOLOBUYEV, V.R.; VEKILOV, F.M.; GADZHIYEV, N.M.; GUSEYNOV, D.M.; GUSEYNOV, I.A.; DADASHEV, K.K.; DADASHZADE, M.A.; DALIN, M.A.; ISKENDEROV, M.A.; YAZIYEV, M.A.; KARAYEV, A.I.; KASHKAY, M.S.; KEL'DYSH, M.V.; KERIMOV, A.G.; LEMBERANSKIY, A.D.; MAMEDOV, G.K.; MEKHTIYEV, M.R.; MIRZOYEV, S.A.; NAGIYEV, M.F.; NASRULLAYEV, N.I.; OGUDZHEV, A.K.; RADZHABOV, R.A.; RUDNEV, K.N.; SADYKHOV, R.N.; SEMENOV, N.N.; TOPCHIEV, A.V.; TOPCHIBASHEV, M.A.; TAIRCVA, T.A.; KHALILOV, Z.I.; EFENDIYEV, G.Kh.; SHUKYUROVA, Z.Z.

IUsif Geidarovich Mamedaliev. Azerb.khim.zhur. no.6:5-6 '61.

(MIRA 15:5)

(Mamedaliev, IUsif Geidarovich, 1905-1961)

NAGIYEV, M.F.; KANDALOVA, V.D.

Applying the theory of recycling to the calculation of zinc
production by the hydrometallurgical method. Azerb.khim.zhur.
no.6:95-103 '61. (MIRA 15:5)
(Zinc--Metallurgy)

NAGIYEV, M.F.; KARAMZIN, P.V.; STEFANSKAYA, T.G.

Development of the theory of recirculatory processes in
chemical technology. Dokl. AN Azerb. SSR 17 no.6:471-478
'61. (MIRA 14:8)

1. Institut neftekhimicheskikh protsessov AN AzerSSR.
(Chemistry, Technical)

38634
 5/581/62/000/003/075
 2166/3144

11 0140

AUTHORS:

Mariyev, F., Vecikhayzer, I. V., Sadykhova, S. A.

TITLE:

Production of diesel fuels from the medium fractions in light thermal cracking of the residue

ABSTRACT:

Referativnyi zhurnal. Khimiya, no. 9, 1962, 516, abstract 2.171 (Dokl. AN AzerbSSR, v. 17, no. 3, 1961, 651 - 656)

TEXT: It is shown that hydrostabilization of the medium fractions in light thermal cracking of the residue (the 135 - 300°C and 200 - 350°C fractions, separated from gasoline + kerosine and kerosine + reflux mixtures, respectively, served as raw material) over an Al - Co - Mo catalyst under previously established optimum working conditions make it possible to obtain Arctic-grade and winter-grade diesel fuels which fulfill the (GOST) requirements and greatly surpass them with respect to cetane numbers. The same can be done over MoS_2 , subject to various working conditions and followed by dewaxing with carbamide. The yield of diesel fuels from these specific fractions is considerably higher with Al - Co - Mo than with MoS_2

Card 1/2

ALIPHANOV, F.N.; ARUSCHANOV, M.A.; ABBUNDONOV, V.Yu.; ALILADE, F.A.; AZILEBROV,
S.A.; BAGIROV, M.A.; VEZIROV, S.A.; VOLOBUYEV, V.A.; KARILOV, F.M.;
GADZHIYEV, M.M.; GUSEYNOV, D.P.; GUSEYNOV, I.A.; GADAGIEV, I.P.;
DADASHZADE, M.A.; DALIN, M.A.; ISFENDEROV, M.A.; FAZIYEV, M.A.;
FARAYEV, A.I.; KASHAY, M.S.; KEL'DYSH, M.V.; KERIMOV, A.G.;
IEMBERANSKIY, A.D.; MAMELOV, G.P.; MEKHTIYEV, M.R.; FIRZAYEV, S.A.;
NAGIYEV, M.F.; NESRULIYEV, M.I.; ORUDZHEV, A.I.; GADZHAOV, R.A.;
RUDNEV, K.N.; SADYKHOV, K.N.; SEMENOV, N.N.; TOPCHIBASHEV, M.A.;
TOPCHIBASHEV, M.A.; TAIROVA, T.A.; KHALILOV, L.I.; SPENDIYEV, S.Rh.;
SHUFIYUROVA, Z.Z.

IUsif Geidarovich Mamedaliev; obitu . . . dokl. Ali Azerb. SSR 17
no.12:1123-1126 '61 (MIRA 19:2)
(Mamedaliev, Iusif Geidarovich, 1905-1961)

NAGIYEV, M.F.

Contemporary problems of the technology of petrochemical synthesis.

Report presented at the 12th Conference on high molecular-weight compounds devoted to monomers, Baku, 3-7 April 62

NAGIYEV, M.F., akademik; TOPCHIYEV, A.V., akademik, red.; SHTEYNGEL',
A.S., red. izd-va; BAGIROVA, S., tekhn. red.

[A wonderful substance; basic concepts of petroleum, petro-
chemical synthesis, and polymeric materials] Chudesnoe veshche-
stvo; osnovnye poniatiia o nefi, neftekhimicheskoi sinteze i
proizvodstve polimernykh materialov. Izd.2. Baku, Azerbaid-
zhanskoe gos.izd-vo, 1962. 328 p. (MIRA 15:12)

1. Akademiya nauk Azerbaydzhanskoy SSR (for Nagiyev).
(Petroleum chemicals)

PHASE I BOOK EXPLOITATION

SOV/6036

Nagiyev, Murtuza Fatulla

Teoreticheskiye osnovy retsirkulyatsionnykh protsessov v khimii
(Theoretical Principles of Recycling Processes in Chemistry)
Moscow, Izd-vo AN SSSR, 1962. 332 p. 3000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR and Akademiya nauk Azerbaydzhanskoy SSR.

Resp. Ed.: A.V. Topchiyev, Academician; Ed. of Publishing House:
A.L. Bankvitser; Tech. Eds: A.I. Makagonova and T.V. Polyakova.

PURPOSE: This book is intended for engineers in the chemical, mining, metallurgical, and other industries and specialists in plant management.

COVERAGE: The book reviews problems in the use of the recycling theory to determine the most economically feasible methods of

Card 1/4

Theoretical Principles of (Cont.)

SOV/6036

utilizing natural raw materials. It includes theoretical calculations and flow diagrams. The introductory part of the text discusses several aspects of the problem in detail: 1) recycling as a method of completely converting raw materials and increasing the yields of main products of chemical reactions; 2) application of recycling methods in laboratory studies of chemical reactions; 3) study of multistage complex processes (where simple and complex recycling are defined); 4) recycling theory as a basis for developing complex processes and selecting optimum processes; 5) application of recycling for increasing reactor efficiency; and 6) the use of recycling theory to solve problems in science and technology. No personalities are mentioned. There are 24 references: 21 Soviet and 3 English.

TABLE OF CONTENTS [Abridged]:

Introduction	3
Ch. I. Fundamental Principles of the Recycling Theory	12
Card 2/4	

Theoretical Principles of (Cont.)	SOV/6036
Ch. II. Theory of Recycling Processes With Unrestricted Composition of the Reactor Feedstock	35
Ch. III. Laws and Rules for Making up Complex Mixtures	117
Ch. IV. Theory of Recycling Processes Which Combines Systems With Restricted and Unrestricted Feedstock Composition	123
Ch. V. General Theory of Recycling Processes	130
Ch. VI. The Block System of Recycle Calculations	179
Ch. VII. Experimental Determination of the Steady-State Parameters of Chemical Processes	199
Ch. VIII. Problems in the Simultaneous Solution of Equations for Recycling and the kinetics of the Chemical Reaction	250

Card 3/4

Theoretical Principles of (Cont.)

SOV/6036

Ch. IX. Development of Elements of the Technological
Process Which Will Make For High Output per Unit
Volume of Reactor Space

256

[References]

326

AVAILABLE: Library of Congress (TP145.N3)

SUBJECT: Chemistry

Card 4/4

BN/pw/bmc
10-31-62

S/081/63/000/004/047/051
B156/B180

AUTHORS: Nagiyev, M. F., Petrova, Z. G., Tryapina, L. J.,
Babayeva, A. A., Aliyeva, K. Ya., Abubekirova, R. U.

TITLE: Determination of the optimum amounts of initiator and emulsifier for the suspension polymerization of divinyl benzenes

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1963, 617 - 618, abstract 4T154 (Azerb. khim. zh., no. 1, 1962, 99 - 103 [summary in Azerb.])

TEXT: The suspension polymerization of divinyl benzene in the presence of an initiator, isopropylbenzene hydroperoxide (0.25 - 2 %), and an emulsifier, the Na salt of dibutyl naphthalene sulfonic acid (0.25 - 2 wt.%) was used to accelerate the process of polymerization of divinyl benzenes. The polymerization process was conducted at 90 and 98°C, the experiment lasted 6 h, and the mixer was rotated at 600 rev/min. The optimum reaction conditions for the maximum yield of polymer with 0.3 - 1.5 mm grains are: 1.5 wt.% of initiator; 0.1 - 0.25 wt.% of emulsifier; 90 - 98°C. [Abstracter's note: Complete translation.]
Card 1/1

NAGIYEV, M.F.; PETROVA, Z.G.; TRYAPINA, L.I.; BABAYEVA, A.A.; ALIYEVA, K.Ya.

Effect of some factors on the yield of polymers and on their
granulometric composition in the suspension polymerization of
divinylbenzenes. Azerb.khim.zhur. no.2:71-79 '62. (MIRA 16:3)
(Benzene) (Polymerization) (Particle size determination)

NAGIYEV, M.F.; STEFANSKAYA, T.G.

Characteristic elements of the recycling systems of chemical combines.
Azerb.khim.shur. no.5:3-17 '62. (MIRA 16:5)
(Chemical engineering)

S/249/62/018/001/002/003

1001 1201

AUTHORS: Nagiyev, M. F., Kandalova, V. D., and Kengerli, A. S.

TITLE: Recirculation calculations of a system of reactors for the fission of plutonium

PERIODICAL: Akademiya nauk Azerbaydzhanskoy SSR. Doklady, 18, no. 1, 1962, 17-20

TEXT. Flow-sheets of two reactors and equations for material balances for the systems are given. The amount of fission products removed is equal to the charge of U^{238} . There are 2 figures. The English-language reference is: Monson Benedict. Ind. and Eng. Chem., 45, 11, 2372, 1953.

ASSOCIATION: Institut neftekhimicheskikh protsessov (Institute of Petrochemical Processes)

SUBMITTED: November 28, 1961

Card 1/1

NAGIYEV, M.F.; KARAMZIN, P.V.; MIRDZHAFAROVA, T.M.

Application of linear programming methods to the solution of
problems of the theory of recycling processes in chemical
technology. Azerb. khim. zhur. no.3:85-92 '62. (MIRA 16:12)

NAGIYEV, M.F.

New frontiers of progress in chemical technology and the objectiveness
of science. Azerb.khim.zhur. no:4:3-11 '63. (MIRA 17:2)

NAGIYEV, M.F.; SHNULINA, L.V.

Predetermination of the validity of designs of recircling systems.
Azerb.khim.zhur. no.4:13-19 '63. (MI LA 17:2)

NAGIYEV, M.F.; AGAYEVA, S.I.; KARASHARLI, K.A.; SULTANOVA, A.I.

Separation of isomers of diethylbenzene by clean-cut rectification.
Azerb.khim.zhur. no.4:95-98 '63. (MIRA 17:22)

MAMEDALIYEV, Yusuf Geydarovich, Laureat Gosudarstvennoy premii, nagrazhden ordenom Lenina, chlen-korrespondent AN SSSR, (1905-1961); NAGIYEV, M.F., akademik, red.; KULIYEV, A.M., akademik, red.; ZUL'FUCARLY, D.I., prof., red.

[Selected works in three volumes] Izbrannye proizvedeniya v trekh tomakh. Baku, Izd-vo AN Azerb.SSR. Vol.1. 1964. 578 p. (MIRA 17:10)

N. DZEV, M.F. ABRADOVA, B.G., KUMYEV, V.G.

Reaction of hydrogen distribution during chromatographic
separation on aluminosilicate catalysts. Azerb. khim. zhur.
no. 5-65-71 '64. (VPI) 13-3

NAGIYEV, M.F.; MUZINOV, N.Y.; BRUKHAROV, V.Y.; ...

Experimental investigation of the reaction of ...
in the presence of aluminum oxide ...
194.

NAGIYEV, M.F.; MIRDZHAFAROVA, T.M.

Solution for the problem of optimum planning of chemical combines.
Azerb. khim.zhur. no.4:93-101 '64. (MIRA 18:3)

NAGIYEV, M.F.; SHTEYNGEL', A.S., red.

[Theory of recycle processes in chemical engineering; methods of chemical engineering used in studying complex multistage reactions, and problems of the optimization of chemical combines] Uchenie o retsirkuliatsionnykh protsessakh v khimicheskoi tekhnologii; metody khimiko-tekhnologicheskogo issledovaniia kompleksnykh mnogostadiinykh reaktsii i voprosy optimizatsii khimicheskikh kombinatov. Baku, Azerbaidzhasnkoe gos.izd-vo, 1965. 474 p. (MIRA 18:8)

L 62775-65 EWT(m)/EPP(c)/T Pr-4 WE

ACCESSION NR: AP5013769

UR/0316/65/000/001/0057/0062

20
19
8

AUTHOR: Hagiyev, M. F.; Abbasova, B. G.; Kuliyeva, V. G.

TITLE: Effect of various factors on the catalytic process of hydrogen redistribution in a continuous chromatographic system for separation of cracked distillates

SOURCE: Azerbaydzhanskiy khimicheskiy zhurnal, no. 1, 1965, 57-62

TOPIC TAGS: hydrogen redistribution, aluminosilicate catalyst, kerosene upgrading, chemical stability, chemically stable fuel, chromatographic separation, stable fuel yield, space velocity, feed rate

ABSTRACT: The effect of temperature, space velocity, and feed rate on the efficiency of the hydrogen redistribution process in the presence of an aluminosilicate catalyst in cracked kerosene, and the yield and quality of upgraded products obtained in a continuous chromatographic system was investigated. The experimental results show that: 1) the reaction rate of hydrogen redistribution in cracked kerosenes is markedly higher than in cracked gasoline or gas oil distillates; 2) the efficiency of the process is low for distillates having a wide fractional composition; 3) the yield of upgraded liquid products with respect to temperature fluc-

Card 1/2

L 62775-65

ACCESSION NR: AP5013769

tuates greatly; 4) the space velocity has no effect on the yield of the reaction products; 5) the feed rate markedly affects the thoroughness of the hydrogen redistribution reaction; 6) temperatures of 250-300 C, space velocities of 0.25-0.50 liter/liter hr, and stock-to-catalyst ratios of 1:1 are the optimal conditions for obtaining stable fuels with an iodine number not exceeding 2 g/100 g of product at a hydrogenation completeness of 96.8%; and 7) the optimal conditions make it possible also to obtain products with contents of aromatic hydrocarbons according to specification. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: INKhP AN Azerb. SSR

SUBMITTED: 30Jun64

ENCL: 00

SUB CODE: FP

NO REF SOV: 013

OTHER: 001

7/2/64
Card 2/2

NAGIYEV, M.F.; IBRAGIMOV, Ch.Sh.

Contribution to the theory of molecular sieves. *Azerb. akad. nauk. zhur.* no. 2:64-70 '65.

1. Institut neftekhimicheskikh protsessov AN Azerb. Submitted
Dec. 7, 1964.

NAHIYEV, M.F.; IPIAGIMOV, Ch.Sh.

Theory of molecular sieves. Azeri. khim. zhurn. 1979. 10. 2. 209. 1979.
MBA 1979.

1. Institut neftekhimicheskikh protsessov AN AzerbSSR.

NAGIYEV, M.F.; KULIYEVA, V.G.; MAMEDOVA, A.D.; MIRZOYAN, N.M.

Kinetic study of the means of intensification of the process of heterogeneous-catalytic synthesis of ethyl chloride. Azerb. khim.zhur. no.4:45-50 '65. (MIRA 18.12)

1. Institut neftekhimicheskikh protsessov AN AzSSR. Submitted December 12, 1964.

ACC NR: AP7012436

SOURCE CODE: UR/0249-66 022 007-0014 0017

AUTHOR: Nagiyev, M. F.; Ibragimov, Ch. Sh.

ORG: Institute of Theoretical Problems of Chemical Technology (Institut teoreticheskikh problem khimicheskoy tekhnologii)

TITLE: Role of capillary condensation in the over-all process of sorption

SOURCE: AN AzerbSSR. Doklady, v. 22, no. 7, 1966, 14-17

TOPIC TAGS: adsorption, condensation reaction

SUB CODE: 07

ABSTRACT: This report is a continuation of a series of reports on research on adsorption. In the previously published works, problems related to physical adsorption on globular adsorbents having a highly dispersed structure were solved. In the present work, the role of capillary condensation is taken into account. The sorption volume is calculated from formulas representing a general case. A formula is derived for adsorbents with a complex structure where adsorption and capillary condensation take place simultaneously. Orig. art. has: 13 formulas. [JPRS: 40,422]

Card 1/1

0932 1385

NAGIYEV, M. R.

USSR / Cultivated Plants. Cereals.

M

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 34615

Author : Nagiyev, M. R.

Inst : AS AzorbSSR

Title : Effect of Meteorological Factors on the Manifestation of Seed debility in Winter Wheat Under Conditions of Irrigation.

Orig Pub : Tr. 1-oy nauch, sessii Soveta po koordinazii AN AzorbSSR, 1957, 166-174.

Abstract : Experiments, conducted by the Agricultural Institute of Azerbaijan, and on collective farms of the district of Nizamiyskiy during the years 1951 to 1954, have produced the following data: at atmospheric temperatures of 17 to 30°C., a relative humidity of 29 to 38%, and with winds up to 10 m per second during the phase of milky ripeness, seed debility in winter wheat did not

Card 1/2

1. Topic : Tropical Cereals.
 2. Author : N. N. N. N.
 3. Institution : Azerbaijan Agricultural Institute
 4. Title : The Problem of the Effect of Meteorological Factors on the Appearance of Undersized Grain in Winter Wheat Grown under Irrigation
 5. Source : Tr. Azerb. s.-kh. in-ty, 1957, 1, 10-11.

6. Abstract : The results are presented of phytological and meteorological observation work conducted when the winter wheat, grown under irrigation, was in the milky and waxy stages. Meteorological factors during the milky and waxy stages had no substantial influence on the appearance of undersized grains.

7. Notes : 1/1

NAGIYEV, P. N.

COUNTRY	: USSR	
CATEGORY	: Cultivated Plants. Cereals.	M
ABST. JOUR.	: RZhBiol., No. 23 1958 No. 104655	
AUTHOR	: Nagiyev, P. N.	
INST.	: Ministry of Agriculture	
TITLE	: The best Planting for Corn in Foothill Regions.	
ORIG. PUB.	: Elmi-tekhn. m'lozmt b illeteni. Azerb. elmi-t dgigat eyvandarlyg v boyterlyg inst., 1957, No. (2), 10-12	
ABSTRACT	: No abstract.	

Card: 1/1

IR. AGI. 1.7.; NGI. 1.7.; Sh. A.

Determining the dynamic characteristics of the reactor-regenerative
apparatus for thermal-contact pyrolysis. Izv. vuz. Khim. 28.1; ref.
1 gaz 8 no. 2: 97-99 1985. (MIP. 18.)

1. Azerbaydzhanskoy Institut nefi i khimii im. N. Azizbekova.

IBRAGIMOV, I.A.; NAGIYEV, Sh.A.

Analyzing factors affecting pyrolysis in an "ethylene regime"
and determining the parameters of automatic control. Izv. vys.
ucheb. zav.; neft' i gaz 8 no.3:97-99 '65.

(MIRA 18:5)

1. Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova.

SULTANOVA, A.I.; NAGIYEV, T.M.

Initiated dehydrogenation of diethylbenzene over quartz. Azerb.
khim.zhur. no.4:85-88 '64. (MIRA 18:3)